Removal of Nasogastric Tube Accidentally Stitched to Roux-en-Y Oesophagojejunostomy Following a Radical Gastrectomy for Stomach Cancer
Case report and review of the literature

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CASE REPORT

A 41-year-old male patient was admitted to the King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia, in 2015 with stomach cancer. He underwent a radical total gastrectomy with a Roux-en-Y oesophagojejunostomy, intraoperative radiation and hyperthermic intraperitoneal chemotherapy. Immediately following the procedure, the patient was extubated and sent to the Intensive Care Unit in a satisfactory condition. During the postoperative period, oral feeding was discontinued for one week and the patient was fed via NGT. Clinical laboratory tests...

removed and the rest of the NGT was successfully extracted using a snare.

Keywords: Enteral Nutrition; Gastrointestinal Intubation; Roux-en-Y Anastomosis; Gastrectomy; Case Report; Saudi Arabia.

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A 41-year-old male patient was admitted to the King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia, in 2015 with stomach cancer. He underwent a radical total gastrectomy with a Roux-en-Y oesophagojejunostomy, intraoperative radiation and hyperthermic intraperitoneal chemotherapy. Immediately following the procedure, the patient was extubated and sent to the Intensive Care Unit in a satisfactory condition. During the postoperative period, oral feeding was discontinued for one week and the patient was fed via NGT. Clinical laboratory tests...
were performed on a daily basis. One week after the surgery, a contrast meal was administered, which showed that the anastomosis was widely patent with no evidence of leakage or obstruction. The decision was made to remove the NGT so that the patient could begin a clear liquid diet.

However, the NGT was very resistant and could not be removed by conventional means. An upper gastrointestinal tract (UGIT) endoscopy was not considered an option so early due to the risk of rupturing the anastomosis. Surgical exploration was also not a viable choice so as to avoid a prolonged hospital stay and any delay in initiating a postoperative chemotherapy regimen. After an otorlaryngology consultation, the removal of the NGT was attempted under general anaesthesia. The patient was intubated and a mouth gag was used to open the patient’s mouth in order to examine the oral cavity. The nasal cavity and the nasopharynx were examined via surgical telescope and the NGT was found to be freely mobile. An upper rigid oesophagoscopy was also performed, but the cause of the difficulty in removing the NGT could not be identified. Accordingly, the proximal portion of the NGT relative to the nose was cut off, leaving behind the distal portion for later removal once the patient had completely recovered.

The patient tolerated the procedure well with no complications. A second contrast meal administered the following day showed no evidence of leakage, enabling the patient to start a liquid-based diet and undergo postoperative chemotherapy treatment. Six weeks later, an UGIT endoscopy was done and revealed that the distal end of the NGT had been accidentally fixed with a single stitch to the Roux-en-Y oesophagojejunostomy. Subsequently, the stitch was cut and the remaining portion of the NGT was removed using an endoscopic snare. Soon after, the patient was discharged in good condition.

Discussion

Unexpected complications can arise during the insertion or removal of an NGT. Following gastric surgery, such as a radical gastrectomy, a mechanically stuck NGT can be indicative of a stitch anchoring the tube. The accidental iatrogenic suturing of an NGT is a rare complication but may nevertheless occur, especially if the NGT passes through an anastomosis.5–7 This serious complication is difficult to manage due to its rarity; moreover, little information is available in the literature to provide guidance for physicians when dealing with such complications.6 Any attempt to forcibly remove the NGT should be avoided as this may lead to serious complications, including dehiscence of the anastomosis, perforation of the gut and profuse bleeding.7

In the current case, removing as much of the proximal end of the NGT as possible was beneficial as it enabled the patient to continue eating, decreased his hospital stay and permitted the early initiation of postoperative chemotherapy, while allowing sufficient time for the anastomosis to heal. In addition, an UGIT endoscopy was deemed the investigation of choice as it allows for the complete assessment and diagnosis of the problem as well as the relatively safe removal of the NGT. However, an endoscopy may itself cause dehiscence of the anastomosis, especially if performed at an early postoperative stage when the anastomosis has not yet completely healed.8 As such, this procedure should be delayed for at least two weeks after the surgery, based on the wound healing process and the strength of the suture material.9

Conclusion

Difficulty in the removal of an NGT following gastric surgery involving a Roux-en-Y oesophagojejunostomy may be due to the presence of a stitch anchoring the tube to the anastomosis, as in the present case. Initially, partial removal of the proximal end of the NGT is recommended to allow sufficient time for the anastomosis to heal; subsequently, the distal end of the tube can be removed at a later date via UGIT endoscopy.

References